# **MILAN KACAR**

#### **Software & Survey Engineer**



### **ABOUT ME**

I am a Software Engineer & Survey Engineer with 3.5 years of professional experience. I graduated Geodesy at Graz University of Technology in Austria, where I work as a project and teaching assistant. I am currently enrolled in two Master's degree programs: Geodesy & Computer Science at the same university. I grew up in Mrkonjic Grad (Republic of Srpska, BA) where I finished my high school.

### PERSONAL INFORMATION

□ Date of birth
□ Birthplace
□ Citizenship
□ Marital status
□ Sex
□ O1.09.1995
□ Banja Luka, BA
□ Austrian
Single
□ Male

### **EDUCATION**

#### **GYMNASIUM**

BSc Geomatics Engineering University of Technology, TU Graz

Master's Degree Programme - Geodesy University of Technology, TU Graz

Master's Degree Programme - Computer Science University of Technology, TU Graz

🛗 2020-Present 😯 Graz, Austria

# **UNIVERSITY & PERSONAL PROJECTS**

- SCIENTIFIC PAPER MINER This project is GOOGLE for scientific papers. Based on the publishing institutions we define our market competitors and geocode their locations. [Python/WebScraper]
- POLLEN TREE DETECTOR (FROM SATELLITE IMAGES) This project presents an automated tree detecting and identification method based on image processing of satellite imagery. [Python/keras/pytorch]
- STOCK PRICES PREDICTOR Project uses AI (Artificial intelligence) and ML (Machine learning) as a hybrid approach to detect prices fluctuation for stocks considering different indexes (SP 500, Dow Jones, DAX etc.)
  [Python/keras/pytorch]
- RUSHB APP New method to summon a waiter and order food in bars and restaurants. As a test page you can look at http://www.dolcevita.rushb.app/client.php. [JavaScript/PHP/Java]
- DIFFERENT SIGNAL PROCESSING PROJECTS Mostly projects on GNSS signals. [C++]
- GRAVITY ANOMALY MAPS GRACE misson. [Python/MATLAB]
- KALMAN FILTER · ADVANCED KALMAN FILTER · PARTICLE FILTER as a part of indoor navigation. [C++]
- DIFFERENT ARDUINO PROJECTS Mostly projects from youtube tutorials and combination of different projects. [C/Java/C++]

# **TECHNICAL STRENGTH**

| Python                       | ••••• |
|------------------------------|-------|
| Google Cloud                 | ••••• |
| C/C++                        | ••••• |
| GIS                          | ••••• |
| PostgreSQL                   | ••••• |
| Navigation                   | ••••• |
| Cloud computing              | ••••• |
| GNSS                         | ••••• |
| Signal Processing            | ••••• |
| Java                         | ••••  |
| Data Structures & Algorithms | ••••  |
| MySQL                        | ••••  |
| Docker                       | ••••  |
| Java Script                  | ••••  |
| РНР                          | ••••  |
| Linux                        | ••••  |
| R                            | ••••  |

**Apache Spark** 

Scala

### DISSERTATION WORK

#### **BSc Thesis**

#### Database for cycling routes

- Entity Relationship Diagram.
- Building the Database.
- Conversion from analog to digital maps.

#### MSc Thesis

#### PV (Photovoltaic) panels detection from satellite images

- Project uses AI (Artificial intelligence) and ML (Machine learning) as a hybrid approach to detect panels.
- Building an independent model to work on different datasets.
- Cloud computing
- YOLOv5

### **WORK EXPERIENCE**

### **Teaching Assistant**

#### **TU Graz**

March 2021 - Present

**9** Graz, Austria

- Integrated navigation
- Sensor fusion
- Indoor navigation

# Software Engineer

#### **TU Graz**

Sep 2019 - Present

**9** Graz, Austria

- Software Architect
- Project management
- Automation
- Data Analysis
- ML forecasting
- Statistics
- Geoinformatics
- Automotive industry
- Automotive Battery and Electric Vehicle Testing

# Survey Engineer

#### **GEODATA**

₩ July 2019 - December 2020

Semmering Basistunnel, Austria

- Tunnel surveying
- 3D Laser scanner measurements

# Data Scientist & Data Engineer

### niceshops GmbH

Harman January 2021 - pending

♥ Vienna, Austria

- Finances (all types of tasks) improving
- Cloud computing
- AI & ML tasks
- Looker platform
- Courses inside the house / teaching
- Research about demand forecasting
- · Dynamic pricing

### **STRENGTHS**

Hard-working Decision Making

Ability to Work Under Pressure

Motivator & Leader

**Conflict Resolution** 

Time Management

Target oriented

Able to travel

Flexibility and Adaptability

Problem solver

### LANGUAGES

Serbian | Croatian | Bosnian German **English** Russian



# **HOBBIES**



#### Reading

I am trying to read a book per week.



#### **Sports Addict**

At a young age I enjoyed playing tennis, but my interests migrated towards Fitness and healthy food.



#### **Travelling**

After living in a rustic, small town for the past 18 years, I was craving change and adventure. Six years later, I've traveled to more places during college than the first two decades of my life.



#### **Trading**

I love to analyze the markets and factors that may impact the price on daily/weekly and long term basis.